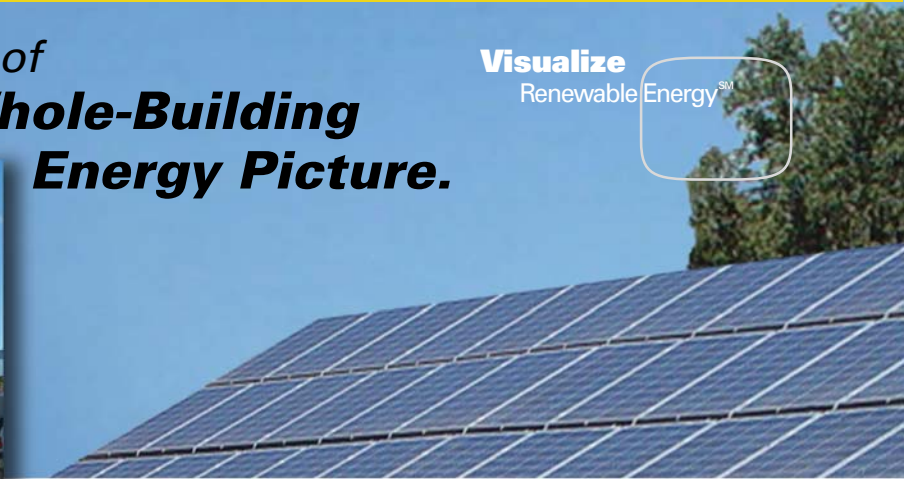


Take Control of Your Whole-Building Energy Picture.

 Visualize
 Renewable EnergySM


PV2Web™ Whole-Building Energy Monitoring

A solar energy system is a great asset for any business, but what good is it if you don't know how much energy the system is producing? With Fat Spaniel Technologies monitoring, you get an accurate and real-time view of your savings and production, wherever you need it.

Maximize your savings by scheduling your heaviest use of electricity when energy is cheapest. Export energy to the grid during peak demand times. With optional energy use monitoring, you can identify energy-wasters and measure the impact of conservation strategies.

Share Your Environmental Benefits With the Community

Businesses need a way to communicate their energy sustainability initiatives and environmental benefits to the community. Clear and dynamic graphics show how much potential pollution you are preventing by generating solar electricity. Customized views for your web site or lobby kiosk are available to increase the visibility of your solar investment.

"Alert" programming stores maintenance and troubleshooting information, so your installation technician can monitor your system remotely, saving on travel and service charges. You can feel secure knowing that your installer will receive automated alerts if there are any performance issues.



End-user view web page showing present and 24-hour historic energy production and consumption, along with environmental benefits of solar power system in one concise view.

Benefits

- Reduce your electricity bill through tighter management of energy production and usage.
- Increase your awareness of electricity use and encourage more energy efficient behavior.
- Improve Net-metering results by maximizing energy export and load-shifting.
- View historical data for seasonal or other comparisons.
- Any time, anywhere access to live system data (web, web-enabled mobile devices).
- Real-time data and performance assessment.
- Download data into spreadsheet-compatible files for more advanced analysis.
- Turnkey, low-maintenance operation.

Available Summer 2004



Monitoring information is viewable on web-enabled PDAs and cell phones.

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Standard System Includes

- All required hardware, including sensors, loggers and communication equipment
- 5 years monitoring service
- 5 years of feature upgrades
- Executive View and Installer Administrative View
- 24x7 information accessibility via any internet enabled device

Hardware Components

- Enclosure: All PV2Web components are delivered assembled inside 1 or more enclosures
 - Steel or plastic
 - Outdoor rated, NEMA 3R
- Communication Gateway
 - Internet connectivity: TCP/IP
 - UL and CE listed
- Power adaptors and power cords
- Connectors and short run cabling

Additional Hardware Components if needed

- Data logger
 - For building load and environmental monitoring
- Current transducers
 - Available Sizes: 3 ¼", 2", 1 ¼"
- Environmental sensors
- Pyranometer or light level sensors
- Thermister
- Anemometer

System Compatibility

- PV2Web is compatible with any inverter including models from:

SMA: Sunny Boy Series, Sunny central

Xantrex: Trace Series, Sun Tie, PV Series

Outback: FX, VFX, GTFX, GVFX

PV Powered: Star Inverter PVP1100, Star Inverter PVP1800, Star Inverter PVP2800

Fronius: IG, Sunrise, Solarix

Sharp: Sun Vista

Ballard: Ecostar

Note: Some systems require power meter

No Computer Required

- No onsite computer necessary
- Monitoring software resides on the Fat Spaniel Technologies' servers

Internet Connectivity

- Internet connectivity is required for data collection at PV site
- Internet connectivity options include DSL, Cable, modem*, wireless*

Power/Electrical

US: Standard 110 AC

EU/UK: 220

Standard Data Collected

- AC voltage (Volts)
- AC current (Amps)
- AC power (Watts)
- AC total energy since start of operation (kWh)

Optional Data Collected

- DC current, voltage, power and cumulative energy
- Building voltage, power and cumulative energy
- Irradiance (W/M²)
- Ambient Temperature and Cell Temperature (Degrees Celsius, Degrees Fahrenheit)
- Wind speed (mph, or m/s)
- Wind direction (Degrees)
- Battery input/out current, voltage, power and cumulative energy

Data Acquisition

- System stores data locally for up to 24 hours in the event of a network outage
- Data upload automatically occurs via Internet connection
- 2 years worth of live data available on the Fat Spaniel Technologies servers

Documentation

- Quick Reference Installation Guide
- Wiring Diagrams

Certifications

- California Energy Commission approved performance meter

* Requires separate accessory kit

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